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| 09/685,304      | 10/10/2000  | Wen-Shi Huang        | 00766               | 4350             |

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EXAMINER

ADDISON, KAREN B

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/685,304

Applicant(s)

HUANG ET AL.

Examiner

Karen B Addison

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 18 November 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8,9 and 11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 11/18/02 have been disapproved because they introduce new matter into the drawings. 37 CFR 1.121(a)(6) states that no amendment may introduce new matter into the disclosure of an application. The original disclosure does not support the showing of a plurality of continuous and intersecting curve surfaces having different arc centers.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1,5,9 and 11 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. The applicant's drawing and specifications fail to disclose the rotor and stator cylinder having lumpy edge comprising a plurality of concave surfaces and a plurality of convex surfaces arranged in a random sequence and a plurality of continuous and intersecting curve surfaces having different arc centers at the time the application was filed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1,4-5 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichihara (449,887) in view of APA.

Ichihara discloses in fig.3 (a) a structure for magnetizing a rotor magnet of a motor, comprising a stator (6) and a rotor (3) having a unitary magnet cylinder bonded by an inner surface and outer surface, wherein at least one of the surface is a unitary and continuous wavy curve having a plurality of continuous and intersecting curved surfaces having different arc centers (a, b, c, d). Ichihara does not disclose the stator having plurality of silicon steel sheets, a stator having a unitary magnet cylinder with a wavy curve continuously connected having different arc centers and a rotor having a magnetic cylinder with a lumpy edge.

APA discloses a structure for magnetizing a rotor magnet of a motor comprising a rotor (12) and a stator (11) wherein the stator comprise a plurality of silicon steel sheets (111) that is symmetrical for the purpose of changing the air gap. Therefore, it would have been obvious to one having ordinary skill in the art at the invention was made to employ the rotor of Ichihara with the stator of APA for the purpose of reducing losses due to magnetic flux.

Claim 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichihara in view of APA as applied to claim 1, 3-5 and 7 and further in view of Petscher (1566693) and Tetsuo (JP02119544).

As seen in paragraph number 3 above, Ichihara discloses a rotor having a unitary magnet cylinder with a continuously wavy curve connected having different arc centers and APA having a stator comprising silicon sheets. However, neither Ichihara nor APA discloses a stator having a unitary magnet with a wavy curve having different arc centers, a rotor having a plurality of silicon steel sheets wound by a plurality of winding coils and a rotor having a unitary magnet cylinder with a lumpy edge.

Pletscher teaches in fig. 12 a motor comprising a stator and a rotor wherein the rotor (A) comprises coils that may be made stationary (pg. 3 Col. 1, line 5-9) for the purpose of reducing manufacturing cost. Pletscher does not disclose a rotor having a magnet cylinder with a lumpy edge.

Tetsuo discloses in fig. 3 a structure for a magnetizing rotor motor comprising: a magnetic cylinder with a lumpy edge and a plurality of concave and convex surfaces arranged in an arbitrary sequence for the purpose of increasing the holding power when the rotor is turned at high speed. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the rotor of Ichihara with the stator of APA and modify the motor with the teaching of Pletscher and the magnetic cylinder with the lumpy edge for the purpose of reducing cogging torque between the stator frame and the rotor frame and to enable correspondence to revolution at high speed by continuously connecting fixed protrusions.

***Response to Arguments***

2. Applicant's arguments filed 11/18/02 have been fully considered but they are not persuasive.

In response to applicant's argument that Ichihara does not show a unitary surface having a continuous wavy surface comprising a plurality of continuous and intersecting curve is noted.

However, Itchiahara clearly shows in fig.3 (A) a unitary surface having a continuous wavy surface (col. 4 line20-55) comprising a plurality of continuous and intersecting curve.

In response to applicant's argument that Testo does not show a magnetic cylinder with lumpy edge that comprises a plurality of concave and convex surface arrange in a random sequence is noted.

However, Testo clearly shows in fig.3 a magnetic cylinder with a lumpy edge (4d, 4a) comprising a plurality of convex and concave surfaces arrange in random sequence.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).


***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen B Addison whose telephone number is 703-306-5855. The examiner can normally be reached on 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on 703-308-1317. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3431 for regular communications and 703-305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

KBA  
November 26, 2002



KAREN B. ADDISON  
EXAMINER  
UNIT 2834  
NOV 26 2002